

TWO NEW SPECIES OF *CYBAEUS* FROM JAPAN

Toshihiro KOMATSU

Cybaeus kirigaminensis n. sp.

(Japanese name : Takane-namihagumo)

Loc. and Date :— Kirigamine Plateau, Nagano prefecture, Oct. 16 th, 1961,
Adult 1 male, 1 female

Collector :— Toshihiro KOMATSU

I. Adult female

Measurements in millimeters :— Total length 6.0; cephalothorax 2.5, width 1.2; abdomen 3.5, width 1.9

Appendages \ Segments	Total	Femur	Patella	Tibia	Meta-tarsus	Tarsus
1st leg	8.85	2.5	0.85	2.0	2.2	1.3
2nd leg	8.35	2.5	0.85	1.8	2.0	1.2
3rd leg	7.60	1.7	0.85	1.5	1.9	1.65
4th leg	11.00	2.4	1.0	2.5	3.3	1.8
Palp	3.45	1.1	0.5	0.75	—	1.1

Measurements in ratio

	in ratio
Major diameter of the direct eye	3.0
" 1st indirect eye (anterior lateral)	5.0
" 2nd indirect eye (posterior lateral)	5.5
" 3rd indirect eye (posterior median)	4.0
Interval of the direct eyes to each other	3.0
" direct eye and 1st indirect eye	2.0
" 2nd and 3rd indirect eye	5.0
" 3rd indirect eyes to each other	4.2
" 1st and 2nd indirect eye	2.0
" direct and 3rd indirect eye	5.0
" 1st and 3rd indirect eye	5.0
Median ocular area length	11.0
" width	12.0
Length of the clypeus	7.0

Color (in alcohol) : Cephalothorax pale yellowish grey, with bluish black edges. Cephalic suture and radiating grooves are bluish black. Chelicerae pale brown and lateral condyle yellowish brown. Maxillae brown, tip white. Labium

brown, tip white. Abdomen dull black in ground color with 4 pairs of pale spots on its dorsum, and is succeeded by a double-curved spot and 2 transverse bands. Cardiac area is marked with a pale pattern. Several pairs of oblique pale stripes on the sides. Legs yellowish brown, ringed with bluish black.

Cephalothorax longer than broad, cephalic part narrowing. Longitudinal median fovea evident. Chelicerae strong. Superior margin of the fang furrow with 3 teeth, middle tooth is the largest. Inferior margin with 9 teeth, basal 4 are very small, and basal part with long straight hairs. Maxillae inclined inwards. Labium slightly broader than long 16:15 in ratio. Apical end procurved, not reaches the half of the maxillae. Sternum longer than broad 46:41 in ratio, armed with black hairs, and its hind part is extending into 4th coxae. But 4th coxae separated by $\frac{1}{4}$ their length.

Palpal claw with 4 teeth. Legs: Order of length 4123. Paired claws with several teeth and inferior claw with 3 teeth. Tibia of 1st leg with 3 retroventral spines, 4 proventral spines and basal part with 2 prolateral spines. Metatarsus with 3 pairs of ventral spines, and basal part with 1 prolateral spine. And its distal part with 1 retrolateral spine. Tibia of 2nd leg with 2 proventral spines, 3 retroventral spines and 4 prolateral spines. Metatarsus with 3 pairs of ventral spines, a pair of lateral spines, and 1 dorsal spine.

Clypeus longer than the diameter of 1st indirect eye, and more than twice the direct eye.

Anterior row of eyes is recurved as seen from front. Posterior row procurved as seen from front (straight as seen from above). (Rows of indirect eyes are incurved.) Median ocular area made of direct and 3rd, is broader behind than in front. Direct eye is the smallest, but more than the radius of the 1st indirect eye. 2nd indirect eye is the largest, and 1st indirect eye is next. Interval of direct eyes to each other is equal to the diameter of the direct, and wider than the interval of direct and 1st indirect eye. Interval of 3rd indirect eyes to each other is more than the diameter of 3rd, and less than the interval of 3rd and 2nd.

Abdomen oval in shape. Spinnerets cylindrical. Anteriors longer than the posteriors, and contiguous, with 2 segments. Apical segment much shorter than basal. Apical segment of posteriors not clearly recognizable.

II. Adult male

Total length 5.0 mm. Legs are longer than the legs of female.

Palp : Patella shorter than the tibia. A flat apophysis occurs on the apical end of tibia. An apophysis is present in the distal half of patella, and its dorsal edge with 2 black teeth (granulations). Patella with 2 dorsal spines. Tibia with 3 stout dorsal spines, 3 dorsal trichobothria and many ventral bristles. Distal part of cymbium with many bristles.

This species allied to *Cybaeus magnus* YAGINUMA, 1954, *Cybaeus aquilonalis* YAGINUMA, 1954. But easily recognizable by the arrangement of the eyes, teeth of inferior margin of the fang furrow, epigynum and others.

Occurrence : Kirigamine plateau (over 1000 m), in damp place where he lives on the surface of stones. He makes a V-shape tube which usually covered with adherent particles of earth, with 2 pairs of touch-threads. Bottom of the tube with a hole, is attached the ground, and when I tried to catch, he made good his escape from this hole to the crevice. Adult in late autumn to spring.

***Cybaeus obedientiarius* n. sp.**

(Japanese name : Nippara-namihagumo)

Loc. and Date : — Nippara cave, Tokyo Aug. 8th, 1951, 1 Adult female

Collector : — Toshihiro KOMATSU

Adult female

Measurements in millimeters : — Total length 4.9; cephalothorax 2.4, width 1.7; abdomen 2.5, width 1.7

Appendages \ Segments	Total	Femur	Patella	Tibia	Meta-tarsus	Tarsus
1st leg	7.40	2.07	0.74	1.85	1.63	1.11
2nd leg	7.14	2.00	0.74	1.66	1.63	1.11
3rd leg	6.24	1.66	0.74	1.33	1.55	0.96
4th leg	8.14	2.07	0.74	1.85	2.22	1.26
Palp	2.89	1.04	0.35	0.76	—	0.74

Color (in alcohol) : — Cephalothorax reddish brown, but cephalic part more red. Chelicerae reddish brown, longitudinal lateral condyle also reddish brown. Abdomen grey in ground color with 4 pairs of uneven pale spots on its dorsum, and is succeeded by a inverted V-like pale mark, and a pale spot at the tip. Legs pale brown. All hairs are reddish black.

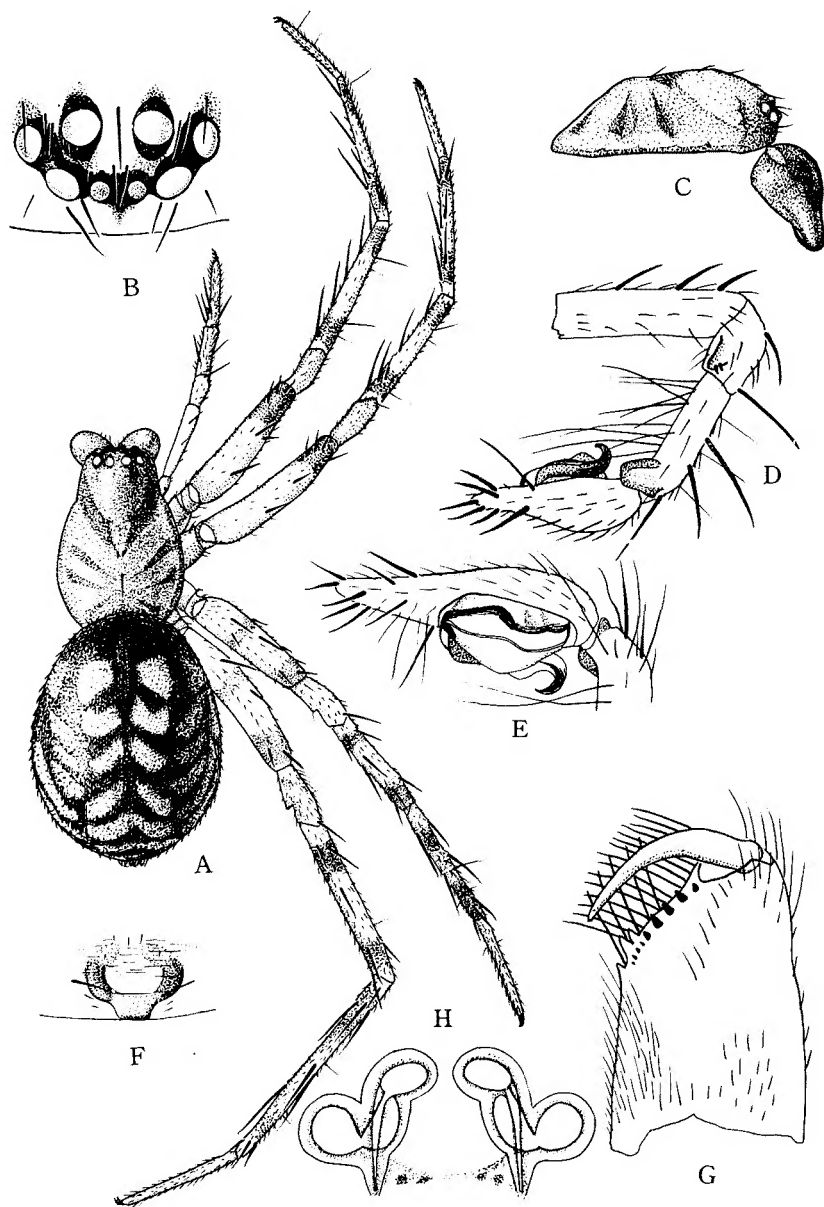
Cephalothorax longer than broad, convexed anteriorly. Cephalic part narrow and both sides parallel. From ocular region to longitudinal median fovea, there

Measurements in ratio :

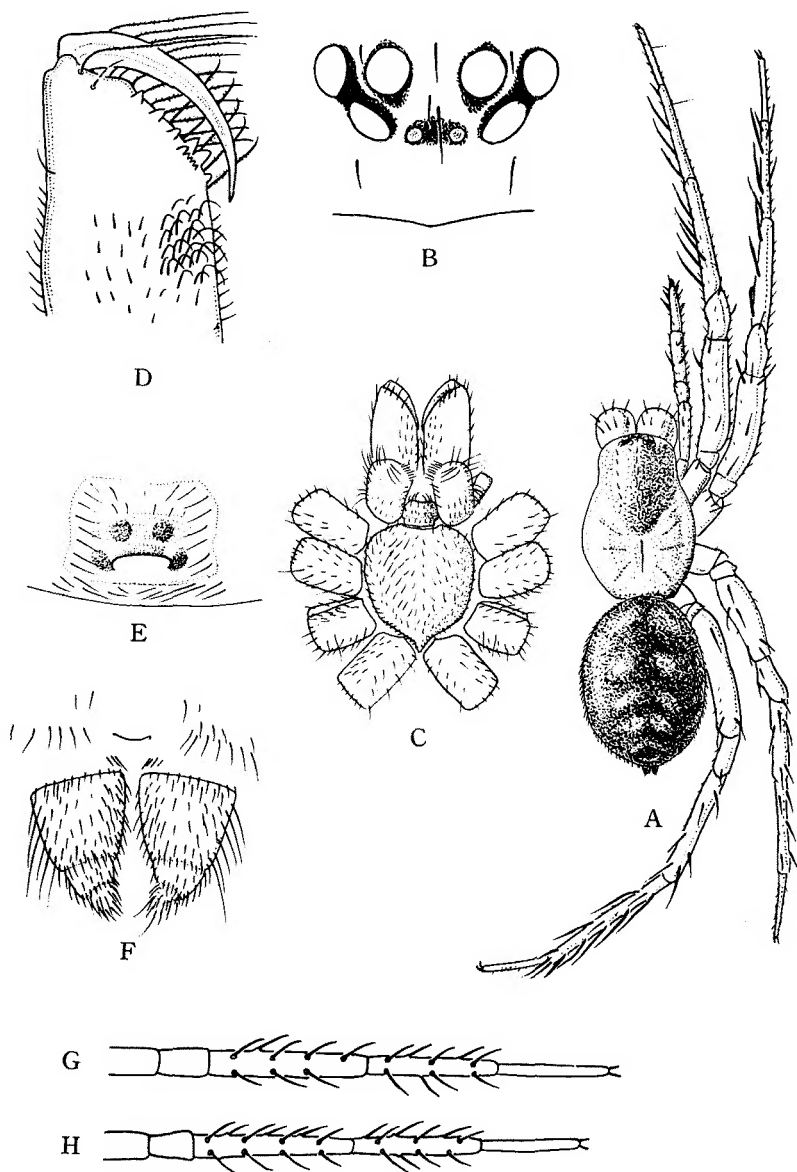
	in ratio
Major diameter of the direct eye	2.2
" 1st indirect eye	7.0
" 2nd indirect eye (posterior median eye)	5.0
" 3rd indirect eye (posterior lateral eye)	6.5
Interval of the direct eyes to each other	3.5
" direct eye and 1st indirect eye	2.0
" direct and 2nd indirect eye	5.0
" 1st and 2nd indirect eye	2.0
" 1st and 3rd indirect eye	1.5
" 2nd indirect eyes to each other	6.0
" 2nd and 3rd indirect eye	4.0
Length of the clypeus	9.0
Width of the ocular region	32.0
" anterior margin of the median ocular area	about 8.0
" posterior margin of the median ocular area	about 16.0
Length of the median ocular area	about 12.0

are some hairs. Cephalic suture and radiating grooves evident. Chelicerae strong, superior margin of the fang furrow armed with 3 teeth. Basal one is smaller than the others. Inferior margin armed with 8 teeth. Basal 4 are very small, and basal 5 closed together. Basal part with many hooked hairs. Maxillae slightly inclined inwards. Labium wider than long 14 : 12 in ratio. Apical end procurved, not reaches the half of maxillae. Sternum longer than broad 45 : 40 in ratio, extending into 4th coxae, and 4th coxae separated by $1/7$ their length. Palpal claw with 3 teeth. Legs : Order of length 4123. Tibia of 1st leg with 4 proventral spines, 3 retroventral spines and basal part with 1 prolateral spine. Metatarsus with 3 pairs of ventral spines, 2 prolateral spines and middle part with 1 retrolateral spine. Tibia of 2nd leg with 4 pairs of ventral spines and 3 prolateral spines. Metatarsus with 3 pairs of ventral spines, 3 prolateral spines and basal part with 1 retrolateral spine. Paired claws with several teeth (1st with 9), median claw with 2 teeth.

Length of clypeus is longer than the diameter of the 1st indirect eye, and more than 3 times the direct eye. Anterior row of eyes recurved, and the rows of indirect eyes outcurved. (Posterior row is recurved, as seen from above.) Median ocular area made of direct and 2nd indirect eyes, broader behind than in front. Direct eye is the smallest, and less than the radius of the 1st. 1st indirect eye is the largest. The 3rd is larger than the 2nd. Interval of direct eyes to each other is more than their diameter. The 1st indirect eye removed from the direct eye less than the diameter of the direct eye. Interval of 2nd to



T. KOMATSU del.



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each other is more than the interval of 2nd and 3rd, and more than the diameter of 2nd. Abdomen is oval in shape. Spinnerets: Anteriors stout and cylindrical, contiguous, and apical segment shorter than basal. Posteriors shorter than anteriors. Apical segment not clearly recognizable.

This species allied to *Cybaeus kirigaminensis* KOMATSU. But easily recognizable by the arrangement of the eyes and others.

Occurrence: Nippara cave, in dim lit to pitch dark place. He builds a V-shape tube with 2 pairs of touch-threads on the wall.

Plate IV *Cybaeus kirigaminensis* n. sp.

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|------------------------------------|-----------------------------------|
| A. Dorsal aspect. (♀) | B. Eyes and clypeus. (♀) |
| C. Lateral aspect of carapace. (♀) | D. E. Palpi. (♂) |
| F. Epigynum (♀) | G. Inner aspect of chelicera. (♀) |
| H. Genitalia. (♀) | |

Plate V *Cybaeus obedientarius* n. sp. (♀)

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|---|-------------------------------|
| A. Dorsal aspect. | B. Eyes and clypeus. |
| C. Maxillae, labium, sternum. | D. Inner aspect of chelicera. |
| E. Epigynum. | F. Spinnerets. |
| G. Ventral aspect of 1st leg (left side). | |
| H. Ventral aspect of 2nd leg (left side). | |

博物館におけるクモの展示

(写真 PL. II 参照)

大阪市立自然科学博物館では館主催の科学調査で集めた国内外各地の標本が展示されているが、その中にクモの標本が相当見られるのも特徴の一つであろう。主に生態により分類され「網を張るクモ」「徘徊性のクモ」「地中生活をするクモ」「居候生活をするクモ」などの題目のもとに生態写真と組合わせ一般の人の興味を引くよう努力している。このほか「外国の珍しいクモ」(トリクイグモ・ゴケグモ・パナマやキューバの形の珍しいクモ・ニューカレドニアのクモ)「クモの卵のう」「クモの仲間」(サソリ・ダニ・メクラグモ)などもある。

スライドグラスにゼラチン貼付をしてホルマリ浸にしたもの、脱脂綿でささえてアルコール浸にしたもの(直径 3cm 長さ 10cm の管瓶使用)を油絵用のカルトン(40cm